

REMARKS/ARGUMENTS

Applicant has carefully reviewed the Examiner's Office Action dated May 4, 2005, in which the Examiner rejected claims 1-3 under 35 U.S.C. 102(b) as being anticipated by Jeong (US 5,204,583).

Amendments to the Claims

Claims 1 and 3 have been amended to overcome the 102 rejections; and claims 4-9 have been added without adding any new matter.

Claim Rejections under 35 U.S.C. 102(b)

The rejection of claims 1-3 under 35 USC 102(b) in view of USPN 5,204,583 (Jeong) is respectfully traversed on the grounds that the Jeong patent fails to disclose or suggest a cathode support as recited in claims 1 and 3, wherein:

- 1) the cathode support includes one or more anchors **and** a support member, the anchor and the support member being **two distinct elements** (as supported by page 12 of the present specification).

While the Jeong patent teaches a filament supporter (which corresponds to the cathode support of the present invention) having multiple extensions and upstanding members thereon, the extensions and upstanding members function as anchors **only--neither constitutes a distinct support member as claimed.**

Instead, the two parts of Jeong's filament supporter, i.e., the extension and a upstanding member, respectively correspond to the arm and a tab of the anchor of the present invention, and do not correspond to the positively claimed "support member" distinct from the one or more anchors.

- 2) the **arm** of each anchors is **slanted** with respect to a lengthwise direction of a cathode (as supported by page 3 line 19 – page 4 line 13 of the present specification), and a **base portion** of the support member is disposed **normal** to the lengthwise direction of the cathode (as supported in Fig. 1A).

In contrast, as disclosed in the Jeong patent, the extensions (which correspond to the arms or the base portions of the present invention) are disposed **only normal** to the lengthwise direction of the filament. The different orientations of anchors and support members in the present invention provide further evidence that they are two distinct elements. On the other hand, the unitary orientation of the extensions in the Jeong patent further demonstrates that Jeong does not include two distinct elements corresponding to the claimed support member and anchors.

- 3) the arm of each anchor applies tension to a cathode connected thereto and a tab portion of the support member supports the cathode connected thereto (as supported by page 3 line 19 – page 4 line 13 of the present specification).

As claimed, the two elements (arm and tab) have two distinct functions whereas, in Jeong, the extensions only apply tension at both ends of the filament.

This difference further confirms that Jeong fails to disclose two distinct elements as claimed in the present application.

Further, in claim 4 of the present invention, the one end of cathode, which has the other end connected to the support member, is connected to an anchor of the other cathode support (as supported in Fig. 1A or Fig. 4), whereas, in Jeong, both ends of the filament are connected the extension.

Further, in claims 6 and 8 of the present invention, the arms spaced apart from each other at regular intervals are provided in parallel as they are slanted with respect to the lengthwise direction of the cathode (as supported in page 12 line 2 – line 10 of the present specification), whereas, in Jeong, the extensions are disposed along a single line.

Further, in claims 7 and 9 of the present invention, the cathode, which has the one end connected to the support member, is disposed above the arm of the adjacent anchor(as supported in Fig. 1A or Fig. 4), whereas, in Jeong, any filament connected to an extension is not disposed above the adjacent extension (which corresponds to the arm of the adjacent anchor).

Accordingly, Jeong does not disclose any of the inventive features of the claims 1, 3-4 and 6-9 described above. Therefore, it is respectfully submitted that the claims 1, 3-4 and 6-9 define a patentable invention over Jeong; and are therefore allowable.

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It is also believed that claims 2 and 5 directly depending on amended claim 1, are allowable for the same reasons indicated with respect to the claim 1, and further because of the additional features recited therein which, when taken alone and/or in combination with the features recited in claim 1, remove the invention defined therein further from the disclosures made in the cited references.

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C O N C L U S I O N

Applicant believes that this is a full and complete response to the Office Action. For the reasons discussed above, applicant now respectfully submits that all of the pending claims are in complete condition for allowance. Accordingly, it is respectfully requested that the Examiner's rejections be withdrawn; and that claims 1-11 be allowed in their present form.

Should the Examiner require or consider it advisable that the specification, claims an/or drawings be further amended or corrected in formal respects, in order to place the case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case be passed to issue.

Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned at any time.

Respectfully submitted,
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